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1. A method of forming an integrated circuit, including  
5 forming a dielectric film comprising,  
providing a substrate,  
providing a CDO film on the substrate, and  
treating the CDO film with an electron beam.
2. The method of claim 1 wherein the energy of the  
10 electrons in the electron beam is about 3 keV or  
greater.
3. The method of claim 1 wherein the energy of the  
electrons in the electron beam is about 8 keV or  
greater.
- 15 4. The method of claim 1 wherein the energy of the  
electrons in the electron beam is determined such that  
the predicted Kanaya-Okayama range of the electrons  
exceeds the thickness of the CDO film.
5. The method of claim 1 comprising,  
20 preparing the CDO film on the substrate by using  
chemical vapor deposition.
6. The method of claim 1 wherein the dielectric film is  
an interlevel dielectric film comprising,  
preparing a damascene structure in the CDO film.

7. The method of claim 6 comprising,  
filling the damascene structure with a metal.
8. The method claim 7 comprising,  
removing excess metal by using chemical, mechanical  
5 polishing (CMP).
9. The method of claim 8 wherein the metal is copper.
10. An integrated circuit, including a dielectric film  
comprising a CDO film having a modulus of about 20 GPa  
or greater.
- 10 11. The integrated circuit of claim 10 wherein the CDO  
film has a dielectric constant of about 2 to about 4.
12. The integrated circuit of claim 10 wherein the CDO  
film has a dielectric constant less than about 3.
13. The integrated circuit of claim 10 wherein the CDO  
15 film has a density less than about 2 g/cm<sup>3</sup>.
14. The integrated circuit of claim 10 wherein the CDO  
film has a density of about 1.3 g/cm<sup>3</sup> to about 1.4  
g/cm<sup>3</sup>.
15. The integrated circuit of claim 11 wherein the  
20 dielectric film is an interlevel dielectric film.
16. The integrated circuit of claim 10 wherein the film  
has a modulus of about 20 GPa to about 25 GPa.
17. The integrated circuit of claim 16 wherein the  
dielectric constant is about 2 to about 4.

18. The integrated circuit of claim 17 wherein the dielectric film is an interlevel dielectric film.
19. An integrated circuit, including a dielectric film comprising a CDO film having a hardness of about 2.8 GPa or greater.
20. The integrated circuit of claim 19 wherein the CDO film has a dielectric constant of about 2 to about 4.
21. The integrated circuit of claim 20 wherein the dielectric film is an interlevel dielectric film.
22. The integrated circuit of claim 19 wherein the film has a hardness of about 2.8 GPa to about 3.5 GPa.
23. The integrated circuit of claim 22 wherein the CDO film has a dielectric constant of about 2 to about 4.
24. The integrated circuit of claim 23 wherein the dielectric film is an interlevel dielectric film.
25. An integrated circuit, including a dielectric film comprising a CDO film having a hardness of about 2.8 GPa or greater and a modulus of about 20 GPa or greater.
26. The integrated circuit of claim 25 wherein the CDO film has a hardness of about 2.8 GPa to about 3.5 GPa and a modulus of about 20 GPa to about 25 GPa.
27. The integrated circuit of claim 26 wherein the CDO film has a dielectric constant of about 2 to about 4.

28. The integrated circuit of claim 27 wherein the dielectric film is an interlevel dielectric film.